ADDITIONAL NOTES ON BLAKEA AND TOPOBEA

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1. To anyone who has examined the anthers, the distinction between Blakea and Topobea is obvious. Nevertheless it is impossible to refer a plant without anthers to either genus, since the various patterns of leaves, inflorescence, bracts, and calyx are often repeated in both. It is quite probable that some species described without flowers have been assigned to the wrong genus. I described Topobea alternifolia without knowledge of the flowers and twenty years elapsed before the collection of flowering specimens showed my error and led me to transfer the species to Blakea.

Cogniaux admitted twenty-four species of Topobea in his monograph of 1891. Some of these he had not seen himself, nor were the anthers described by the original author. Whether these species actually belong to Topobea can only be surmised. They must have been assigned there solely on their general facies and that is completely unreliable.

Since then sixteen species have been proposed and not yet transferred. Of these barbata Gl., Brenesiana Standl., brevibractea Gl., cuspidata Gl., discolor Hochr., Durandiana Cogn., floribunda Gl., longisepala Gl., pubescens Gl., and rupicola Hoehne undoubtedly belong to this genus, while ferruginea Gl., Maurofernandeziana Cogn., pluvialis Standl., rosea Gl., Storkii Standl., and urophylla Standl. may or may not belong, so far as my present knowledge of them is concerned.

2. When Blakea calyptrata was described, it was noted that a second sheet from a thousand meters lower elevation differed in no "technical" characters except the width of the bracts; it was given a varietal name. Now a third sheet has been seen which again differs in no important characters except the shape of the leaf. While the type of the species came from the western slope of the Cordillera Occidental, alt. 980-1180 m., this was collected on the eastern slope at an altitude of 2500 m. I propose varietal rank for it also.

BLAKEA CALYPTRATA Gl. var. OVATA, var. nov. A typo differt foliis ovato-lanceolatis acuminatis.

Type, Cuatrecasas 21684, collected at Hoya del Río Cali, en La Palma, Dept. del Valle, Colombia.

3. Examination of additional material and repeated comparison with older collections still convince me that the species mentioned by me (Bull. Torrey Club 72: 1. 1945) form

a group easily segregated by their general similarity and therefore a practical group for purposes of identification. I am not satisfied, however, that the species are actually phylogenetically related, as stated by me earlier (Ann. Mo. Bot. Gard. 28: 434. 1941).

Blakea Andreana Cogn. was the first species of the group to be described. The type was collected near Vijes in the valley of the Cauca River, alt. 1800 m. So far as foliage is concerned, it is duplicated by Cuatrecasas 22188, from the western Cordillera of El Valle, alt. 1950-2000 m., and his 21599 from the same general region, alt. 2250-2260 m. The upper surface of the leaf lacks white punctation, but is sparsely marked with black dots which look like the mouth of pits, but which are actually only saucer-shaped depressions. The primary veins curve inward near the end of the leaf to form a half circle, the blade is broadly rounded at the summit, and the terminal apiculum is lacking or rudimentary.

Plants of the Eastern Cordillera, referred by me (1945) to B. Andreana, are more or less white-punctate on the upper leaf-surface, the blade is short-acuminate, and the primary veins meet the midvein at a very acute angle. They may be described as new.

BLAKEA ORIENTALIS sp. nov. Arbor 20 m. alta. Petioli crassi, 2--3 cm. longi, minute furfuracei. Laminae subcoriaceae, ellipticae, usque ad 18 cm. longae 9 cm. latae, abrupte breviterque acuminatae, basi late cuneatae, 3-nerviae jugo marginali neglecto, supra glabrae subnitentes sparse albo-punctatae, subtus brunnescentes fere glabrae. Pedunculi solitarii complanati glabri ca. 4 cm. longi. Bracteae fere aequales, ad medium connatae, coriaceae, late rotundatae, glabrae, 2 cm. longae. Sepala bracteas 8 mm. excedentia, semicircularia, late rotundata, coriacea, rubescentia. Petala rosea obovata subcoriacea 4 cm. longa. Antherae late semiobovatae, 8 mm. longae; connectivo basi in calcar rectum breve producto.

Type, Lawrance 153, in high forest, region of Mt. Chapon, Boyacá, Colombia, alt. 2250 m. I also refer here tentatively Killip & Smith 20197 from Norte de Santander, in which the leaves are proportionately broader, more abruptly acuminate, and very densely white-punctate above and the leaves and sepals much thinner in texture.

4. TOFOBEA REDUCTA sp. nov. Liana, ramis gracilibus juvenilibus, petiolis, et pedunculis tenuissime furfuraceis. Folia valde dimorpha; petioli majorum usque ad 7 mm. longi; laminae ellipticae chartaceae, 5--8 cm. longae, 2.5--3.7 cm. latae, caudato-acuminatae, basi obtusae, 5-pli-nerviae, utrinque glabrae subnitentes; petioli minorum vix 1 mm. longi; laminae ovatae, 3--8 mm. longae. Flores solitarii, peduncu-

lis ca. 15 mm. longis. Bracteae ad basin distinctae, ca. 3 mm. longae. Hypanthium poculiforme, 2.5 mm. longum. Calycis tubus ca. 0.5 mm. longus; lobi late rotundati ca. 1 mm. longi. Petala ovata, 3 mm. longa. Antherae crasse subulatae, 2 mm. longae, basi tuberculo dorsali ornatae.

Type, Cuatrecasas 21082, from Río Calima, in the Choco region of El Valle, Colombia, alt. 30--50 m. Since the specimen exhibits only a single flower, no dissection has been made and the dimensions stated above are approximate. The anthers are clearly visible and leave no doubt of the generic position of the plant. Only three species with anisophyllous leaves have hitherto been described. Of these T. glabrescens Tr. has sessile, cordate-clasping leaves; T. insignis Tr, has much larger 5-nerved leaves, setose stem, and bracts longer than the calyx. T. anisophylla Tr., to which our plant is most closely related, has subsessile leaves broadly rounded or subcordate at base, much longer peduncles and bracts equaling the calyx.

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NOTES ON SOME AMERICAN PLANTS

H. A. Gleason

Sida Elliottii and Sida inflexa.

Sida Elliottii is a well known species of the southeastern states, represented in the larger herbaria by ample series of specimens. Such manuals as Gray, seventh edition, Britton & Brown, second edition, and Small give its range as extending north to Virginia and Missouri. A recent collection of the Virginian plant by Fernald has led him to examine the species carefully and as a consequence to segregate the plants of Virginia, Missouri, Tennessee, and one collection from Alabama as Sida inflexa Fern.

The differences between S. Elliottii and the proposed species are stated by Fernald (Rhodora 40: 463, 464) as shown below.

1. S. E. (a) Stems nearly glabrous, (b) 1.5--8 dm. tall.
   S. i. (a) Caule minute stellato-puberulo, (b) 0.6--1.2 m. alto.
2. S. E. (a) Cauline leaves linear, (b) mostly 1.5--5 cm. long, (c) 1.5--7 mm. wide.
   S. i. (a) Foliis lanceolato- vel lineari-oblongis, (b) 2.5--6 cm. longis, (c) 0.4--2 cm. latis.